

Important Farmlands

**DONA ANA COUNTY,
NEW MEXICO**



**SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE**

July 1979-I



The objective of the Important Farmland Inventory is to identify the extent and location of the best lands capable of producing food, fiber, forage, feed, and oilseed crops in Dona Ana County, New Mexico. This inventory was carried out in cooperation with other agencies at the National, State, and other units of government.

The inventory is not intended to designate specific land uses. This is a prerogative of the responsible state and local officials. The U.S. Department of Agriculture and the Soil Conservation Service (SCS) are concerned, however, about the loss of prime farmlands. It is SCS policy, therefore, to make and keep current an inventory of prime farmland and unique farmland in the Nation.



It is important to emphasize that prime farmland is one of the most important resources of the Nation. This exceptional land can be farmed continuously or nearly continuously without degrading the environment. It responds exceptionally well to fertilizer and other chemical applications with limited loss of residues by leaching or erosion. It is the most responsive to management for maintaining productivity.

The Nation needs to know this information. It provides the basic data for sound management decisions that are needed to protect this important resource base.



THE MAP

Delineations of land have been made on the map. Three delineations show farmland under irrigation. The green areas are primary farmland (65,548 acres), the yellow areas are additional farmland of statewide importance (29,479 acres), and the cross-hatched areas represent other farmland (7 acres).

The white or uncolored areas of the map are classified as "other" land. Most of this area is native grassland.

The other map color, light gray, represents urban areas.

CRITERIA

The criteria used in identifying important farmland in Dona Ana County are related to soil characteristics and the availability of irrigation water. They were set up to facilitate the inventory of the Nation's most productive farmland in a reasonable time by using existing soil surveys.

The inventories of prime and unique farmlands are dynamic. New areas may be developed, and others will be converted to irreversible uses. Thus, the inventory should be updated periodically to reflect any significant changes.

DEFINITION

PRIME FARMLAND

Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. The land could be cropland, pastureland, rangeland, forest land, or other land, but not urban, built-up land or water. It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed. This includes water management according to acceptable farming methods. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation; a favorable temperature and growing season; acceptable acidity or alkalinity; acceptable salt and sodium content; and few or no rocks. They are permeable to water and air. Prime farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.

Prime farmland in Dona Ana County, New Mexico, meets the following criteria:

The soils have an adequate moisture supply. The area has a developed irrigation system that is dependable and of adequate quality to meet moisture requirements eight out of ten years. The soils have four inches or more available water-holding capacity within a depth of 40 inches or within the root zone, if the root zone is less than 40 inches deep.

The soils have a soil temperature time that is frigid, mesic or thermic. (an annual soil temperature at a depth of 40 inches is higher than 32 degrees F.)

The soils have a pH between 4.5 and 8.4 in all horizons within a depth of 40 inches in the root zone if the root zone is less than 40 inches deep.

The soils either have no water table or a water table maintained at a sufficient depth during the cropping season to allow the growth of cultivated crops common to the area.

The soils can be managed in all soil horizons within a depth of 40 inches (or in the root zone if the root zone is less than 40 inches deep), so that during part of each year the conductivity of saturation extract is less than 4 mmhos/cm and the exchangeable sodium percentage (ESP) is less than 15.

The soils are not flooded frequently during the growing season (less often than once in two years).

The soils have a product of K (permeability factor) x percent slope of less than 2.0 and a product of T (topographic factor) x C (climatic factor) not exceeding 60. That is, prime farmlands include soils which have no erosion hazard.

ADDITIONAL FARMLAND OF STATEWIDE IMPORTANCE

This is land, in addition to prime and unique farmlands, that is of statewide importance for the production of food, feed, fiber, forage, and oilseed crops. Criteria for defining and delineating this land were determined by state agencies in New Mexico.

The soils in this category are important to agriculture in New Mexico, yet they exhibit some properties that exclude them from prime farmland. Examples of such properties are erodibility, limited rooting zone, seasonal wetness, or moderate amount of soluble salts. These soils can be farmed satisfactorily by using more fertilizers, erosion control practices, and irrigation water management. They produce fair to good crop yields when managed properly.

OTHER FARMLAND

This land has severe limitations for crop production such as texture, salinity, alkalinity, or high water table. The land is marginal, and requires special care.

These lands have been identified because of their importance in the local economy.

UNIQUE FARMLAND

Unique farmland is land other than prime farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce high yields of a specific crop when treated and managed according to modern farming methods.

Unique farmland was not recognized in Dona Ana County.